

AUDUBON
WATERBIRDS
OF
AMERICA

Fifty selections with commentaries by Roger Tory Peterson

The Macmillan Company



Black-Throated Blue Warbler

Black-Throated Blue Warbler

[DENDROICA COERULESCENS]

DURING the pleasant days of early summer, at least half of the birds in the Canadian wilderness are wood warblers of one kind or another. Smaller than most sparrows, they make the somber trees gay as they flash through the filtering shafts of sunlight. Many species prefer the evergreens, the hemlocks and spruce, but the black-throated blue warbler, a male of which is shown here on a graceful columbine, likes the deciduous woods equally well if there is an understory of ferns and laurel. Although other warblers are more highly colored, none is so neatly plumaged or so easy to identify. Females are more nondescript: little olive-brown birds with a small white patch on the wing. Audubon did not include the female in this plate because, like other naturalists of his day, he thought the female was a different species and called it the "pine swamp warbler."

Not strictly a Canadian, the black-throated blue warbler nests also in the damp hilly woods of New England and south in the mountains to the high Smokies where it abounds in every rhododendron thicket, singing its husky notes, *zur, zur, zur, zree*, with a lazy, rising inflection. On their trek to and from their winter home in the West Indies, black-throated blue warblers might be seen in any garden, even in the city, where they consort with other transient warblers. Equip yourself with a pair of binoculars and a field guide and watch this annual show.

ROGER TORY PETERSON



Canada Warbler

Canada Warbler

[WILSONIA CANADENSIS]

THE round full script at the bottom of this print in the original elephant folio edition informs us that the two small birds disporting themselves among the rhododendron blossoms are *Canada flycatchers*. There is an evolution in names, even vernacular names, and although some stick, no matter how inappropriate, others change through the years. Many birds portrayed by Audubon are known by different names today than they were then. Usage has dictated some; others have been modified when their relationships became clarified. Thus, in due time, it was decided that the present species was a warbler, not one of the flycatcher family. If the author of every new bird book that came along decided to change some of the names to suit himself, all would be chaos. Hence the scientific organization known as the American Ornithologists' Union, has set up a central authority—the check-list committee—to pass on questions of nomenclature. The names they finally decide on become standard.

The Canada warbler, appropriately named, is common in the damp rocky woods of eastern Canada and along the Appalachian ridges as far south as Georgia. It keeps rather close to the ground in the cool ravines and laurel thickets. Its unmarked blue-gray back and the necklace of short black streaks across its yellow breast make it easy to identify. All warblers have their "field marks" and when the floods of migrants pour northward in spring it is sometimes possible to identify twenty-five species or more in a day.

ROGER TORY PETERSON



Pine Warbler

Pine Warbler

[DENDROICA PINUS]

ONE May day, long ago, Audubon found a small yellow-breasted bird fluttering in the tall grass on a little island in Perkioming Creek on his farm at Mill Grove, Pennsylvania. It perched on the bladelike leaves of the spiderwort plant on which he drew its portrait. Audubon called the diminutive bird *Vigors vireo*, believing it was something he had not seen before. But here he was mistaken, as he was on several other occasions when he described "new" birds. It was a pine warbler, a species known well enough to him, but this individual, away from its usual haunts in the pines, threw him off. It seemed a little different, but remember, he was pioneering. Birds new to science were still being described in those days, even in America, where men were so busy pushing frontiers that they had little time to watch birds. Today bird watchers have grown legion, the binocular has replaced the gun, and field guides have made the identification of birds quick and accurate.

The pine warbler, smaller than a sparrow (about five and one-half inches long) lives in open pine woods and pine barrens from southern Canada to Florida and Texas. Wintering in the southern states, it is one of the first of the great family of warblers to move northward in the spring. Its song, coming from the groves of pines on warm spring days, reminds one of a chipping sparrow's trill, but is more musical.

ROGER TORY PETERSON



Alder, or Traill's, Flycatcher

Alder, or Traill's, Flycatcher

[EMPIDONAX TRAILLII]

THERE are several little flycatchers that are as alike as peas in a pod. Even an expert can scarcely tell them apart by merely looking at them. Smaller than sparrows, they are dark-backed with light wing-bars and light eye-rings. Otherwise there is nothing distinctive about them. They sit erect on the ends of twigs as flycatchers do, waiting until flies or beetles buzz past. But when the little birds open their mouths to sing they tell the world which kind of a flycatcher they are. The alder flycatcher, figured here, snaps its head back as if it had the hiccoughs, and says *way-be'-o* in a hoarse, burry way, or *witch-brew*. Audubon was sharp enough to detect this difference when he chanced upon the bird in his travels along the Arkansas River. He portrayed it on the corky-winged branch of a sweet gum and described it to the world as a new species, naming it in honor of his friend, Dr. Traill, of Liverpool.

In addition to their voice differences, the various little flycatchers distinguish themselves by habitat. Whereas the least flycatcher likes orchards and groves, and the Acadian flycatcher shady woodlands, the alder flycatcher is partial to swampy thickets of willows and alders along the edges of streams. Widespread, the species ranges from Newfoundland to Alaska, south to West Virginia in the eastern mountains, and to the Mexican border in the West. It seems to be most abundant in the Northwest.

ROGER TORY PETERSON



Passenger Pigeon

Passenger Pigeon

[ECTOPISTES MIGRATORIUS]

OVER a century ago the passenger pigeon was probably the most numerous bird in all the world; today it is extinct. Incredible as it seems, it may have outnumbered *all* other birds in the United States combined—hundreds of species. One authority, summing up the evidence, believes that in Audubon's day there were nearly five billion passenger pigeons in the states of Kentucky, Ohio and Indiana alone! From Newfoundland to Florida, early writers told of immense hordes. The great columns in flight, extending for hundreds of miles, blotted out the sun and took as much as three days to pass. Alexander Wilson, sometimes called the father of American ornithology, estimated a flock in Kentucky to contain 2,230,272,000 birds. He considered this far below their actual numbers. He reckoned that if each bird ate a half pint of acorns a day, their daily food consumption would be 17,424,000 bushels! Similarly, Audubon estimated a flock near Louisville at 1,115,136,000 birds.

Accounts of the great roosts read like the tales of a romancer. Trees broke under the weight of the pigeons; thousands of armed men slaughtered day and night and shipped countless barrels to the big cities where they rotted on the sidewalks for want of buyers. The last immense nesting took place in Michigan in 1878. During the next thirty years the remaining flocks dwindled until they were gone. The last passenger pigeon in the world expired at the Cincinnati Zoo at 1:00 p.m. Central Standard Time, September 1, 1914.

ROGER TORY PETERSON



Rufous Hummingbird

Rufous Hummingbird

[SELASPHORUS RUFUS]

IN the American tropics hummingbirds buzz about the blossoms in bewildering variety. There are 320 species at least, or nearly 700 if one counts the subspecies. Yet of all these, only one, the ruby-throat, crosses the broad waters of the Gulf of Mexico to eastern North America. Although it weighs no more than a copper penny it completes the five hundred mile hop between dawn and dark. Some ruby-throats continue until they reach the Gulf of St. Lawrence and the tiny wanderers have even been seen in gardens in Newfoundland. There is, however, one other member of the family that is an even greater traveler, the rufous hummingbird, portrayed here by Audubon. Swarming northward through the Pacific states in spring, some continue the marathon to Alaska, where they have been recorded as far as the 61st degree of latitude. To equal this the ruby-throat would have to fly to Greenland. In contrast to these two adventurers there are other species so sedentary that they are unknown away from the slopes of a single Andean volcano!

The rufous hummingbird returns to its winter home in Mexico by way of the mountain meadows of the Sierras and the Rockies. There, in summer, the slopes are alive with hummingbirds of three or four kinds. California is visited by six species of hummingbirds and southern Arizona by ten. The rufous hummingbird is the only one of this tribe north of the border that possesses a bright rusty back.

ROGER TORY PETERSON



Anna's Hummingbird

Anna's Hummingbird

[CALYPTE ANNA]

WHO was Anna? Was she a little girl who lived long ago, perhaps the small daughter of the naturalist who first described this species? Or his wife? Actually the facts have a much more intriguing flavor. Lesson, a Frenchman of Audubon's era, who wrote a monograph on the hummingbirds, noticed a new jewel among the shipment of hummers that he had just received from Mexico. With a romantic flourish he honored a lady of his acquaintance, Anna, the Duchess of Rivoli, by bestowing upon it her name. So to this day, Californians who watch the little creature buzzing about the hibiscus in their gardens and who know it by name, pay lip service to the memory of an unknown lady in a distant land.

Whereas eastern North America possesses only one hummingbird, the ruby-throat, California boasts six. Anna's hummingbird is the largest of the lot (about four inches long) and is the only one with a red forehead. When winter approaches, the other Californian hummers withdraw into Mexico, toward the land of their origin where they consort with the more tropical members of their family, but Anna's, relieved of competition, darts about the California gardens all winter long, visiting even the smallest gardens in the heart of town. Males have a "song," if their high squeaky notes can be called that, and also an aerial display during which they zoom back and forth as though swinging on the end of an invisible pendulum.

ROGER TORY PETERSON



Towhee

Towhee

[PIPILO ERYTHROPHthalmus]

MORE than a hundred years ago, in an era when travel was slow and arduous, John James Audubon explored the woods, shores and swamps from Labrador to the Florida Keys and from the Atlantic westward to the upper reaches of the Missouri. During his lifetime he painted about five hundred species of birds, two-thirds of all those ever recorded in North America. Since then the face of the continent has been altered. Some birds have grown rare, several have gone completely, while others like the Towhee, shown here, are probably far more numerous today than they were then. The 'towhee bunting,' as Audubon called it, benefited by the settling of the land. It likes dry brushy places where trees have been cut off and low scrub is reclaiming the naked earth. Birds with such tastes—birds that live in the young growth—have much more elbow room than they had when America was an unbroken wilderness of ancient trees.

The towhee is smaller and slimmer than a robin; black-backed if it is a male, brown-backed if a female. Both have rusty-red sides and show great white spots in their tails when they fly away. There are towhees of one kind or another over most of the United States. The typical eastern bird, shown here, attracts attention to itself by rummaging noisily among the dead leaves, and by its note, a loud *chewink!* Its song sounds to some ears like *drink-your-teeeee*.

ROGER TORY PETERSON



Purple Finch

Purple Finch

[CARPODACUS PURPUREUS]

PURPLE hardly describes the rosy hue of these attractive finches which Audubon has shown dangling from the tips of larch twigs. They appear rather like sparrows that have been dipped in raspberry juice or wine—the males, that is. The female, shown at the lower left, looks more like a heavily streaked song sparrow.

In winter when purple finches spread over most of the United States, people who feed birds are delighted when their window trays are visited for samples of sunflower seeds and peanut hearts. Like several of the other northern finches, they are erratic, here one winter, absent the next, traveling about in small nomadic flocks. Opportunists, they wander until they find a ravine or a grove where the crop of seeds and small wild berries is especially good. There they remain a few days, then wander on. As they pass overhead we know they are purple finches by their note, a dull metallic *tick*. Wintry weather with its blanket of snow does not matter to them. Like many birds they can stand the cold blasts if they find enough to eat. In survival, body temperature is more important than the temperature of the air.

Spring sees the purple finches withdrawing to the more northern parts of the United States and Canada, to the cool evergreen country where they nest. Some even travel to Newfoundland where they sing their fast spirited warbles from the tips of the small spruces and firs.

ROGER TORY PETERSON



White-Winged Crossbill

White-Winged Crossbill

[LOXIA LEUCOPTERA]

WITH their cross-tipped pruning shears, crossbills snip the rough scales from the spruce cones and deftly extract the flat brown seeds. Strangely erratic in their habits, they are content to stay all winter in the cold forests of Quebec or Alaska if the branches are heavily laden with cones, but in years when the crop is poor they pull out. I have known summers when the woods along the Maine coast were alive with crossbills, calling noisily to each other and flying about in little bands like big goldfinches. The next year I might not see a single one. At intervals—sometimes years apart—flocks wander as far south as the central states, far from their home forests.

Not only are crossbills given to these unpredictable wanderings or "invasions," but they might take it into their heads to nest at any time of the year—even during the bitter days of January when the drifts lie deep over the land and only the long view of things would concede the eventual return of spring. On the other hand their hidden nests in the evergreens have been found during the hottest days of August.

There are two kinds of crossbills in America. The best known is the red crossbill, a dingy brick-red bird, but the handsomest is the white-wing, rosy red or dull pink with broad white wing bars. Audubon has shown two males and two females on an alder twig which he picked in Newfoundland.

ROGER TORY PETERSON



Summer Tanager

Summer Tanager

[PIRANGA RUBRA]

IN the South there are two "red-birds": the "winter redbird" (the cardinal), which remains all year, and the "summer redbird," shown here. The only two birds in the eastern states that are *all* red, they are easily recognized, for one has a crest, the other has not. From the moss-draped live oaks or the long-leaf pines the summer tanager sings its robin-like phrases, but far more characteristic is the note with which it always announces itself, a staccato *chicky-tuck*, a note unlike that of any other bird. The yellowish female says *chicky-tuck* too, but she does not sing. Occasionally, if a storm sweeps up the coast in April, at the time when summer tanagers are making their hazardous passage across the Gulf, a few are carried as far as New England, but except for such acts of God the summer tanager is an unreconstructed southerner, seldom venturing across the Mason and Dixon Line. The other eastern species, the scarlet tanager, crimson with black wings, is a Yankee by adoption, spending the summer in the oak woods of the northern tier of states and southern Canada.

In Latin America four hundred species of tanagers, garbed in vivid shades of red, blue and yellow, vie with the parrots and trogons in making the tropics gay. Why, out of all this gorgeous galaxy, only two tanagers should be adventurous enough to cross the Gulf of Mexico is one of the many mysteries of migration.

ROGER TORY PETERSON



Painted Bunting

Painted Bunting

[PASSERINA CIRIS]

LIKE a gaudy tropical flower that has taken wing, the painted bunting livens the gardens on the outskirts of Charleston, Savannah and many other southern towns. Some call it the *nonpareil*, for no other American bird can match its dazzling patchwork of color. It is a bird of the low country, absent from the hills . . . a bird of the thickets and hedgerows, singing its bright pleasing warble throughout the heat of the day as insistently as the indigo bunting does in the thickets further north. The female, lacking the coat of many colors, is just a little green finch, hardly to be noticed by anyone.

The five birds which Audubon has drawn on a sprig of chickasaw plum are engaged in a territorial squabble. In fact, so scrappy are the little brightly colored males, that the Creoles of Louisiana once lured them into trip cages in which they had placed stuffed birds, mounted in belligerent poses. Thousands were caught and sold as cage birds in the markets of New Orleans, and many eventually reached the bazaars of London and Paris. I myself have seen caged painted buntings in the Cuban section of Key West, but it is now illegal to confine them. The great national society which bears Audubon's name has done much to change the attitude of that earlier era towards wildlife. Today sentiment alone is sufficient to safeguard song birds, even though America can boast the best protective laws of any country in the world.

ROGER TORY PETERSON



Vesper Sparrow

Vesper Sparrow

[POOECETES GRAMINEUS]

EACH bird has its own distinctive label. The vesper sparrow's identification tag is its white outer tail feathers which flash conspicuously when it flies. Otherwise it would look rather like a song sparrow or any other little brown bird.

Although Audubon sketched the vesper sparrow, or "bay-winged bunting," as it was called in those days, beside a prickly pear cactus (*opuntia*), it is a bird of the green meadows that stretch across the northern states and southern Canada. Shy, it runs mouselike along the side of the road or pauses behind a weed until its pursuer passes. Then, hopping to the tip of a mullein stalk or a fence post, it sings. Its melody sounds like the brisk lay of a song sparrow but has a minor quality, with two low, clear introductory notes. At dusk, when other voices grow silent, it continues to sing from the fence line until darkness finally stills it.

Our native sparrows are a large family, somber, streaked little birds, but attractive in a modest way. Most of them sing well—some seem almost inspired—and their food habits of small insects and weed seeds make them economically desirable. So do not for a moment put them in the same category with the house sparrow, an immigrant which neither sings nor has too desirable habits. They do not even belong to the same family, for the house sparrow is related to the weaver finches of the old world.

ROGER TORY PETERSON



White-Crowned Sparrow

White-Crowned Sparrow

[ZONOTRICHIA LEUCOPHRYS]

A GLIMPSE of a white-crown is enough to show that it is no ordinary sparrow. Distinguished in mien, with broad black and white stripes on its crown, it lacks the drabness of the common lot. To those of us who live along the Atlantic seaboard, the white-throated sparrow is much more familiar, a bird with similar head stripes, but which has in addition a square white throat patch. We see white-crowns in migration, but not many; a few hop elegantly on the lawns in early May and sing their wheezy lyrical notes from the hedges. These transients are en route to Newfoundland, Labrador and the Hudson Bay country, the very threshold of the Arctic, where the last stunted spruces give way to the tundra.

West of the Appalachians the white-crown is much more numerous during the season of its passage, and in the far West is positively abundant. There it can be heard, even in summer, singing from the edges of every bog in the high mountains. One race breeds on the coast as far south as California. Every garden in the Pacific states is visited by some race of this handsome sparrow.

The plant which Audubon pictured in this attractive design is the summer grape (*Vitis aestivalis*) and the sparrow so furtively peeking from behind the big leaf is an immature individual, one of those tan-looking youngsters with pink bills that show up with their parents in the fall.

ROGER TORY PETERSON



Florida, or Scrub, Jay

Florida, or Scrub, Jay

[APHELOCOMA COERULESCENS]

LOOK only in the drab stretches of scrub oak in Florida for this handsome jay which Audubon has shown among the persimmons. Not so noisy as the blue jay, or rather not so continuously noisy, the Florida jay shows great curiosity when anyone invades the low scrub where it lives, and hopping to a bush top, sits with tail hanging down, watching, and talking in low tones to the others of its flock. Alarmed, they all fly off, screaming in rasping accents.

The familiar blue jay lives in Florida too, usually in the bigger oaks where Spanish moss hangs in gray festoons, but it can be distinguished at a glance by its jaunty crest and the white spots in its wings and tail, features which the Florida jay lacks. Long considered a distinct species which has never been recorded outside the peninsula of Florida, the Florida jay is now lumped with the California jay, the crestless jay of the western states, from which it differs only slightly in color. The name "scrub jay" then, is more suitable, one race becoming the Florida scrub jay, the other the California scrub jay.

The *corvidae*, the family to which jays and crows belong, is regarded by many naturalists to be the most intelligent group of birds in the world—birds which will survive against all odds. Persecuted, they have become wary, all except the Florida jay, which is so unafraid that it will take food from the hand of a friend.

ROGER TORY PETERSON



Cardinal

Cardinal

[RICHMONDENA CARDINALIS]

CARDINALS have been the favorite subjects of bird artists ever since Audubon's day. One modern bird painter tells me that one commission out of every ten he receives is for a portrait of a cardinal. Another confides that he has made at least twenty paintings of cardinals, and that no matter what kind of a job he turns out he can sell it. Bright red birds always have an irresistible appeal, whether they are framed on the living room wall or flying free about the snow-covered food shelf outside the window.

One would think a bird so brightly colored as the cardinal would surely migrate to the tropics, along with the tanagers and orioles, but, on the contrary, a cardinal that spends the summer in a garden is likely to winter there too, probably not wandering more than a quarter of a mile away all year—even in northern Ohio or southern Ontario where the snow lies deep and the temperature drops below the zero mark. But by and large the cardinal is more typical of the southern states, where it vies with the mockingbird for first place in the affections of garden lovers. Perched among the waxy leaves of a magnolia, the male chants in clear slurred whistles—*what, cheer, cheer, cheer, cheer, cheer!* Once a favorite cage bird, trapped commercially by tens of thousands, it has grown more numerous and is now a familiar town bird in cities as far north as Cleveland, Ohio.

ROGER TORY PETERSON



Mourning Dove

Mourning Dove

[ZENAUDURA MACROURA]

IN flowery words, describing this flowery scene, Audubon wrote: "On the branch above, a love scene is just commencing. The female, still coy and undetermined, seems doubtful of the truth of her lover, and virgin-like resolves to put his sincerity to the test, by delaying the gratification of his wishes. She has reached the extremity of the branch, her wings and tail already opening, and she will fly off to some more sequestered spot, where, if her lover should follow with the same assiduous devotion, they will doubtless become as blessed as the pair beneath them."

Nature writers of an earlier generation almost always wrote in this vein, seeing human thoughts and emotions mirrored in wild creatures. Birds became little people dressed in feathers. Although "humanizing" the animals made them more appealing, it distorted the truth and retarded our understanding of wildlife. True, some of the same natural laws control both birds and men, but modern behaviorists find that birds have a psychology of their own, quite unlike ours.

The mourning dove, or Carolina turtle dove, as it was called in Audubon's day, is found in every state in the Union, and were you to drive across the country in summer you would probably see it beside the road on more days during your journey than any other bird. Smaller and slimmer than a domestic dove, its pointed tail is its best mark. Its call, a mournful *ooah*, *cooo*, *cooo*, *coo*, fades in the distance to three ghostly *coos*.

ROGER TORY PETERSON



Blue Jay

Blue Jay

[CYANOCITTA CRISTATA]

MANY uncomplimentary things have been said about the blue jay. It has been called a "thief" because it pilfers acorns from the squirrel's cache; a "tease" because it mobs the little blinking screech owl; and a "bully" because it chases other birds from the food shelf. It has even been labeled a "deep-dyed villain" for eating birds' eggs as the trio portrayed by Audubon are doing. But it is a false thing to evaluate wild creatures according to human virtues and failings. For a blue jay to rob a nest is a natural act. Jays have helped themselves to eggs for centuries and still the small birds thrive; their reproductive rate is geared high enough to absorb such losses. If there were no natural checks such as this, there would be so many warblers, vireos and other small birds that their food supply of insects would give out and they would starve—or at least some of them would, until the balance was restored.

There is a "blue jay" of some kind in every state in the Union and in much of wooded Canada, but the three birds pictured here represent the *real* blue jay, a bird larger than a robin, with a blue back, a crest and white spots in its wings and tail. Found from Newfoundland to the Gulf of Mexico, it is replaced in the West by a dark jay with a crest (Steller's jay) and a paler one without (California jay). ROGER TORY PETERSON



Yellow-breasted Chat

Yellow-Breasted Chat

[ICTERIA VIRENS]

THE versatile chat has been called an acrobat, a clown and a ventriloquist. Its strange puzzling calls come from the thickets while the singer remains hidden—clucks, mews, caws, coos and whistles that would do credit to a mockingbird. However, the chat's repertoire is more limited than that of a mocker, with longer pauses between the phrases. The act that caps the climax of the show is the flight song, when, revealing itself at last, the bird ascends with flopping wings and dangling legs, singing wildly, and parachutes back to the briar patch. Audubon, always a careful observer, faithfully records the clowning grotesquerie of the flight song, while he shows below a female brooding amid a bower of sweet-briar roses.

Systematists disagree as to how the chat should be classified. For want of a better solution they have placed it in the warbler family, even though it is 7½ inches long, half again as large as the general run of warblers. However, it acts more like one of the mimic thrushes (the family of birds that include the catbird, brown thrasher, and mockingbird). It likes the same kind of brushy tangles they do, has the same loose-jointed actions, sings and mimics like one, sings on moonlit nights as they often do, and, of course, its flight song suggests that of a mockingbird. Can it be that living as neighbors in the same environment—the same catbriar tangles—produces a similar personality?

ROGER TORY PETERSON



Baltimore Oriole

Baltimore Oriole

[ICTERUS GALBULA]

WHEN George Calvert, the first Lord Baltimore, visited the settlement of Virginia he found many birds along the Chesapeake. None, however, had beauty so breath-taking as the flame-colored birds, smaller than robins, which were later to bear his name. Much impressed, so the story goes, he took their colors, orange and black, for his coat of arms.

Although Audubon portrayed them appropriately enough in a tulip tree, Baltimore orioles are particularly partial to elms. However, in some towns the spread of the Dutch elm disease has forced them to use other trees. The nest, deep as a handbag, is hung from the tips of the longest, most sweeping branches, where no cat would venture. One can help the feathered architects by putting out yarn and string, cutting them into lengths not exceeding ten or twelve inches so that the birds won't get tangled in them.

As if following some inviolable schedule orioles make their annual pilgrimage over tropical jungles, across or around the Gulf of Mexico, through the plantations of the Gulf states and ever northward until in early May they reach the elm-shaded towns of the Great Lakes and New England. A few continue into southern Canada. Bad weather might hold them up a little, but not much, and they arrive within a day or two of the same date from year to year. No birds follow the calendar more precisely than those that winter deep in the tropics.

ROGER TORY PETERSON



Clapper Rail

Clapper Rail

[RALLUS LONGIROSTRIS]

FOR hundreds of miles, from Long Island to the Gulf of Mexico, stretch the long beaches, built up of shell and sand, brought from the bottom of the sea by the waves. Behind these barrier islands lie the salt marshes, from one to five miles broad in places. These are the homes of the "salt water marsh hen." There might be hundreds of them in the marsh, but you probably would not see even one if the tide is low, for they are as shy as birds can be, running ratlike through the grass unnoticed. Although they can swim if they have to and can fly if they choose, they would rather use their legs. They are easy to locate, however, when the tide comes in and forces them onto the last high spots, or toward sundown when their clattering *kek-kek-kek-kek-kek* sounds from far and near. Then the marsh seems alive with them, and all night long they answer each other from the sedge.

For many years these palatable fowl, as large as small chickens (fourteen to sixteen inches long), have been favorite gamebirds, hunted up and down the coast. When high storm tides strand them the toll is great, and it is recorded that ten thousand were killed in two days near Atlantic City. Today clapper rails are reduced in number, not alone because of the killing and the egging, but because of a much more potent factor—the drainage of the marshes.

ROGER TORY PETERSON



Yellow-bellied Sapsucker

Yellow-Bellied Sapsucker

[SPHYRAPICUS VARIUS]

BIRD artists of today, inhibited by their ornithological critics, seldom show the originality so characteristic of Audubon's work. A woodpecker is usually shown clinging to a tree, with its tail braced in traditional woodpecker fashion; it would be considered daring to draw one dangling from a berry-laden branch as Audubon has pictured these sapsuckers. Yet Audubon must have witnessed a scene such as this.

The yellow-bellied sapsucker, an inch or two longer than a downy woodpecker, is the only eastern woodpecker in which the male has a red throat patch. But an easier way to identify it is the longish white patch that extends diagonally down the wing, as shown in the upper bird. This stands out at a distance and is the best field mark. Typical of the Canadian woodlands and the mountain country, the sapsucker is the most migratory of all the woodpeckers, sometimes traveling to the West Indies and Central America.

In a family of highly valuable birds that save millions of dollars of timber annually, this is the only one regarded as harmful; just how harmful we don't know. It has the habit of drilling rows of holes, as evenly spaced up and down "as corn on the cob," and from these pits it gathers the tree's oozing life blood, sapping it up with its brushlike tongue. Downy woodpeckers, squirrels, hummingbirds and butterflies patronize the sapsucker's wildwood bar, and sip the stolen brew when the bartender is away.

ROGER TORY PETERSON



Snowy Owl

Snowy Owl

[NYCTEA SCANDIAGA]

THE key to life in the Arctic is the lemming, the little mouse-like mammal that increases so rapidly that even its enemies cannot keep it in check. Periodically when it reaches saturation there is a population crash. The snowy owl waxes fat on the lemming horde in peak years, but when the depression comes it must leave the barren tundra and seek food elsewhere. Flights of these big ghostly owls drift into the United States about one year in four, and at longer intervals invasions of thousands pour across the border.

As one would expect of birds of the midnight sun, they are not as nocturnal as other owls, but fly abroad by day, searching the marshes, the open plains and the dunes along the sea for rabbits and other four-footed fare. So persecuted are they by trophy hunters that few survive the winter to make the return trip. However, one year, four spent the winter successfully at a dump in the Bronx where they caught rats and escaped notice, because at a distance they looked like bundles of newspaper. The fuzzy young of all owls are white and are, therefore, sometimes mistaken for snowy owls.

At home in the far north, the snowy owl has few enemies except the Arctic fox and the Eskimos who find the eggs of *Ookpikjuak* very palatable. There it sits upon its hillock, surveys its bleak domain and intones its baleful booming to the polar sky.

ROGER TORY PETERSON



American Magpie

American Magpie

[PICA PICA]

THE explorers Lewis and Clarke, on their historical expedition, were the first to record the magpie in the United States. They saw their first ones near the great bend of the Missouri, and more as they proceeded westward. Although magpies are found over a large part of Europe and Asia, in our country they are confined to the mountains and valleys of the West, particularly the arid sage-brush country. There, around the ranches, they are a striking sight as they fly with level flight across the fields, white wing patches flashing and long tails streaming out behind. From beak to tail they measure about twenty inches.

At this stage of Audubon's work the West was still in the period of exploration. Many new birds were yet to be described, and because he could not set foot on all parts of the continent, he abandoned his earlier resolve to paint only from fresh specimens that he himself had taken. The American magpie falls in this group. Some of his western birds were received from friends who were not always sure of the bird's origin. Thus Collie's magpie-jay, a magnificent long-tailed bird of southern Mexico, was mistakenly recorded by Audubon as coming from the Columbia River, and Morton's finch, a Chilean bird, from California.

Modern ornithologists may criticise Audubon for these inaccuracies, but the fact remains that he was perhaps the greatest American ornithologist of his or any other period, a trail breaker when our country was still a wilderness.

ROGER TORY PETERSON



Roseate Tern

Roseate Tern

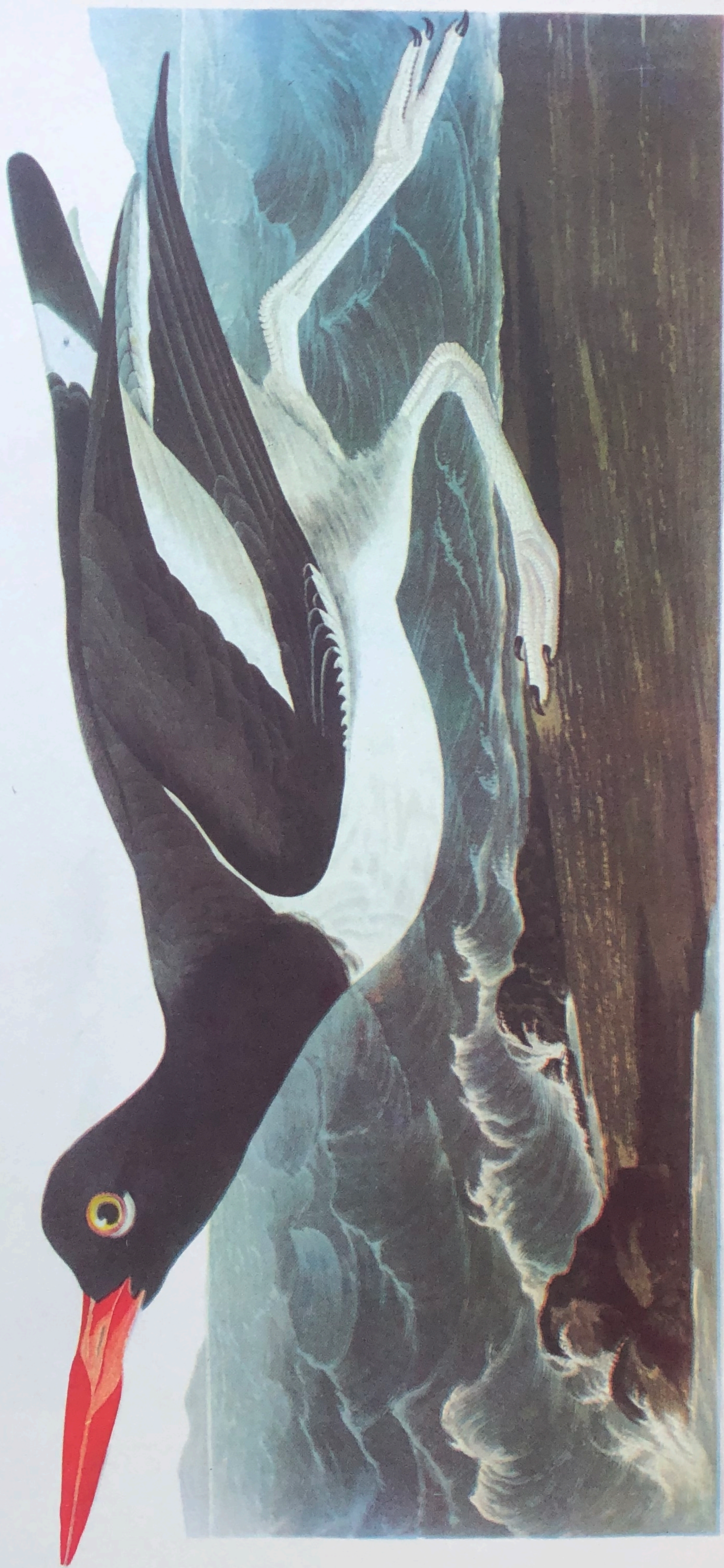
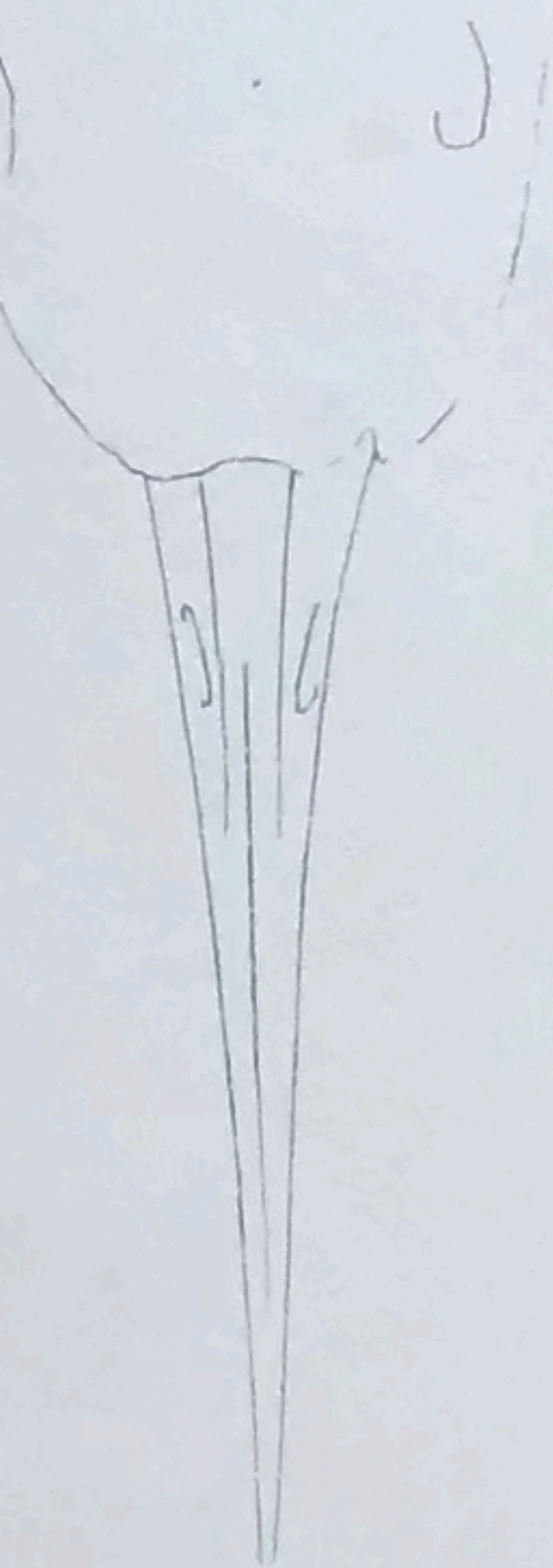
[STERNA DOUGALLII]

NO bird of land or sea is more buoyant, more skillful in the air, than this exquisite tern. Gulls are clumsy by comparison. When Audubon saw his first roseate terns at Indian Key in Florida, he remarked: "I thought them the hummingbirds of the sea, so light and graceful were their movements." Other writers since have made a more apt comparison, nicknaming them "sea swallows."

Terns are among the most cosmopolitan birds in the world. They wander the seven seas at will, snatching tiny fish from the surface or diving for them like kingfishers. The different kinds look much alike, with jet black caps and forked tails, but this distinguished member of the clan is more streamlined than the rest, with a longer tail and, in May, a soft peach-colored "bloom" on its breast.

The distribution of the roseate tern is strangely spotty. Found here and there along the Atlantic coast, the main group nests on certain little islands off southern New England and about Long Island Sound. South of there it is almost unknown until the Florida Keys are reached. It also lives in Bermuda, Venezuela, on islands off the coasts of Europe and Africa, in India, Ceylon and China. Hundreds of miles separate some of the colonies, to which the birds are drawn as if by a magnet. Why they should resort to certain ancestral bars and islands while unaccountably avoiding thousands of others that would seem equally suitable, is a mystifying habit.

ROGER TORY PETERSON



Oystercatcher

Oystercatcher

[HAEMATOPUS PALLIATUS]

CONTRARY to the impression given by the goggle-eyed bird in this portrait, one does not have to run fast to catch an oyster. The usual technique of the "sea-crow," as the baymen call it, is to stalk about at low tide on the beds of exposed "coon" oysters and disable them with a clip of its big red bill. It is as skillful in opening the reluctant shellfish as any professional oyster-opener.

A foot and a half long, it is one of the largest and most striking of all the shorebirds, flashing great white wing patches when it flies. Little parties, flying from bar to bar, rapidly repeat their piercing whistles—*whEEP! whEEP! whEEP!* Because they attract so much attention to themselves their survival is threatened. Audubon found oystercatchers as far north as Labrador, where he watched them pry limpets from the rocks, and apparently they lived along the entire coast from there to Argentina. Today they are gone entirely from the northeast, and, except for a very few, from Florida as well. To be sure of finding oystercatchers today one must go to Virginia or the Carolinas, or else to the Texas coast. There on the white shelly beaches they still lay their two or three blotched eggs on the naked sand.

Oystercatchers do not migrate much; the birds of the Virginia and North Carolina coasts merely move as far as South Carolina where they augment the big flocks that winter about Cape Romaine.

ROGER TORY PETERSON



Merlin or Pigeon Hawk

Merlin or Pigeon Hawk

[FALCO COLUMBARIUS]

IN his *Ornithological Biography* Audubon describes a scene on a coastal marsh over which hundreds of gunners are deployed. A pigeon hawk appears, stirring a great flock of blackbirds into flight, and by skillful maneuvering cuts one bird from the flock and captures it. While the panic-stricken blackbirds are milling about, Audubon advises: "Now is your time. Pull your trigger and let fly, for it is impossible, should you be ever so inexperienced, not to bring down several birds with a shot." Leaving his comrades to their sport he then returns to the pigeon hawk which he terms "the little marauder . . . bent on foul deeds."

Man in his egocentric fashion has long regarded creatures that compete with him as "marauders." Audubon was no exception. At best, a distinction was made between "good hawks," meaning those that ate mice, and "bad hawks," those that ate birds. But today our thinking about these things is changing. We know that the natural predators have lived in satisfactory adjustment to their prey for thousands of years, and that destroying them will not result in more birds, for then other checks, such as disease or starvation will act as levelers. Only those who are biologically illiterate still shoot hawks as "vermin."

The little pigeon hawk, which I prefer to call the merlin, its original old-world name, is hardly longer than a robin, and lives in the cool Canadian northwoods. It migrates through the United States in open country and along the coast.

ROGER TORY PETERSON



Wood Ibis

Wood Ibis

[MYCTERIA AMERICANA]

FEW Americans realize that we, in our country, have a native stork, for that is what the wood ibis is. Less trusting than the friendly storks that nest on the roof tops in European hamlets, our wood ibis shuns civilization, withdrawing to the deep swamps of the south. The best place of all to see it is far out on the Cape Sable road in the Everglades National Park. This, our newest national park, dedicated to preserving our only large piece of tropical wilderness, does not depend on high mountains, waterfalls or breath-taking vistas for its public appeal as other parks do, but rather on its wildlife, of which the long-legged waders—the glamour birds—are the most conspicuous. Hundreds of egrets and other herons fish in the pools, white ibises trail across the sky in long streamers, but the most striking birds of all are the wood ibises. Squadrons pass overhead, stroking the air with their jet-black wing tips; hundreds more wade the shallows, driving before them the myriads of small fish with which the glades abound. Frogs, water snakes and baby alligators alike are gobbled up by the advancing phalanx.

The nesting colonies, far back in the glades, are difficult to reach without a guide. A nursery such as the East River rookery is one of the ornithological spectacles of the continent. There, in the labyrinth of islands, tens of thousands of nesting wood ibises crown the mangroves like great white blossoms.

ROGER TORY PETERSON



Fish Crow

Fish Crow

[CORVUS OSSIFRAGUS]

A LONE crow on the beach gives pause to the man with a glass. Is it an ordinary crow or is it a fish crow? True, there are three or four inches difference in their sizes, but one can't be sure of size when the bird is standing alone, where there is nothing with which to compare it. But if the bird talks it tells everyone within hearing what kind of a crow it is. If it caws an honest to goodness *caw*, then it is a common crow. If it says *ca* or *cah* in a nasal juvenile sort of way it is a fish crow—the small crow that lives along Atlantic tidewater from Long Island to the Gulf of Mexico. Audubon commented: "At times the sound of their voices seems as if in faint mimicry of that of the common crow, at others, one would suppose that they are troubled with a cough or cold."

Fish crows can be found far up some of the large rivers that drain the Atlantic slope; rivers like the Hudson, Delaware and Potomac which are influenced by the tide. They are numerous around Washington, D. C., where they seem quite at home on the ledges of the Smithsonian, the National Museum and the other government buildings that line Constitution Avenue. No doubt they hunt for pigeons' eggs along these man-made cliffs. In Audubon's day they fearlessly entered every coastal town, but since then they have learned the wary ways of other crows.

ROGER TORY PETERSON



Snowy Egret

Snowy Egret

[LEUCOPHOYX THULA]

THE snowy egret, "the heron with the golden slippers," has become the proudest symbol of the National Audubon Society, the great conservation organization of which John James Audubon is the patron saint. At the beginning of this century the little snowy, loveliest of all American herons, was on the way out. Its exquisite plumes, called "aigrettes" by the trade, were worth \$32 an ounce, twice their weight in gold. Every heronry was ferreted out and destroyed. As the birds bore these nuptial sprays only at nesting time, the young birds, bereaved of their parents perished too, and the stench of death hung heavy over every colony. Where there had been hundreds of thousands of egrets in our southern states there soon remained but a few hundred. The National Audubon Society fought for plumage laws and to meet the emergency hired wardens. The first Audubon warden in South Florida, Guy Bradley, was shot by plume hunters near Cape Sable in 1905. A marker which stands where his body washed ashore reads "Faithful unto death." Under protection the egrets and all the other long-legged waders have made a spectacular comeback. Today snowies by the scores of thousands again nest throughout the southern states.

Audubon chose for his background a rice plantation in the Carolina "low country." We wonder whether the small figure in the ditch at the right is meant to be Audubon himself, carefully stalking the bird which is to be immortalized as his model.

ROGER TORY PETERSON



Key West Quail-Dove

Key West Quail-Dove

[OREOPELEIA CHRYSIA]

WHEN Audubon visited the Florida Keys in 1832 several West Indian doves made regular visits to these tropical isles. On May 6th, with a Sergeant Sykes who was stationed at Key West, he secured a dove new to him, the bright rusty bird which he has portrayed here among lavender morning glories. These richly-colored doves hid in the dense thickets of West Indian hardwoods that grew about the shady ponds, and cooed mournfully as all doves do. To his ears their moaning notes sounded like *whoe-whoe-oh-oh-oh*. Later he saw more of them as they crossed the blue-green waters between Cuba and Key West, flying in small loose flocks of five or six to a dozen. By midsummer the doves became numerous enough to enable sportsmen to shoot as many as a score in a day.

Today Key West has been stripped almost bare of its native trees; the town has grown and the Navy has taken over. The Key West quail-dove, ruddy quail-dove, Zenaida dove, and perhaps one or two others that lived in the Keys in those days are gone. Only one West Indian dove, the white-crowned pigeon, still makes its annual pilgrimage across the Gulf from Cuba. It still nests sparingly on some of the small mangrove keys between Key West and Cape Sable. Birds that live on islands are always more vulnerable, more easily exterminated, than birds that reside on large continental areas.

ROGER TORY PETERSON



Field Sparrow

Field Sparrow

[SPIZELLA PUSILLA]

AUDUBON'S compositions are as remarkable for their flowers as for their birds. He has been hailed as a botanical pioneer, but few of his admirers know that many of the plant accessories in his earlier plates were the work of a talented thirteen-year-old boy, Joseph Mason. Later, after Mason left his employ, Audubon was assisted by George Lehmann and Maria Martin. This undoubtedly accounts for the unevenness in decorative quality between various plates. Usually the plants are appropriately chosen. They are flowers or twigs that suggest the bird's habitat, conjuring up the image of a swamp, a field or a ravine. Sometimes they were added at a later date, long after the bird had been drawn by the master. In this painting the bird, a field sparrow, seems incidental to the sprigs of dwarf huckleberry and the graceful orchids (*calopogon*) towering above it.

The field sparrow is not so much a bird of the fields as its name implies, but lives in brushy pastures and clearings where there are a few low bushes—borderline country where cultivated land, going fallow, is making its slow return to the forest. In such terrain, from southern Canada to the northern parts of the Gulf States, it sings its pensive strains, a clear sweet series that starts with deliberate slurring notes and speeds into a hurried trill. Smaller than a house sparrow, or about the size of a chippy, the singer can be identified by its rusty cap and pink bill.

ROGER TORY PETERSON



Bachman's Warbler

Bachman's Warbler

[VERMIVORA BACHMANII]

NO American bird is more mystifying than this fragile warbler, scarcely more than four inches long. Few living ornithologists have seen it. Discovered by the Reverend John Bachman near Charleston, South Carolina, in 1835, it was described for the world by Audubon. For fifty-three years the little fugitive dropped from sight before it again turned up, this time in Louisiana, but during the succeeding few years, just before the end of the century, hundreds were found. It seemed to be common throughout the river swamps of the south, living in tangled places where trees stood knee-deep in the stagnant pools. Then, before anyone noticed, it again faded away. Very few have been seen during the past forty years.

Even more curious than the history of the bird itself is that of the plant on which it rests, the *Franklinia*. Found on the Altamaha River in Georgia by William Bartram, it would be unknown today if the pioneer botanist had not placed in his saddle bag some slips and seeds which he transplanted to his Philadelphia garden. No one has found the tree in a wild state since 1790, for the almost mythical groves along the Altamaha are gone. The tree, however, might survive longer on this earth than the warbler, for trees can be cultivated, warblers cannot. Although Audubon painted the birds in this composition, Maria Martin (who later became Bachman's second wife) put in the blossoms, drawing them from plants that had come from Philadelphia. ROGER TORY PETERSON



Bald Eagle

Bald Eagle

[HALIAEETUS LEUCOCEPHALUS]

WHEN Audubon first saw the bird that he glorified in this noble portrait, he believed he had discovered a new species. He wrote: "Not even Herschel, when he discovered the planet which bears his name, could have experienced more rapturous feelings." Audubon named it "The Bird of Washington," and as his reason explained, "I can only say that as the new world gave me birth and liberty, the great man who insured its independence is next to my heart." In reality, the bird he described was not new to science. It was merely an immature bald eagle, a species he should have known well. But this young bird puzzled him; it did not look typical. On the other hand, had it been an adult with its white head and white tail he would have instantly recognized it.

Contrary to legend the bald eagle never snatches up babies, but prefers fish to all other animal food. It likes to be near water, building its huge nests in tall trees near the coast and the Great Lakes, where they often become landmarks. There are more bald eagles in Florida than in any other state, but there are many in the Potomac-Chesapeake area too. Recently an occupied nest was found within the city limits of Washington, D.C., an appropriate site for our national bird. Now protected by federal law and by a growing sentiment, our remaining bald eagles are secure and will not disappear as eagles have done in many European countries.

ROGER TORY PETERSON

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White Gyrfalcon

White Gyrfalcon

[FALCO RUSTICOLUS]

IN medieval days when knights and kings rode forth with trained falcons on their wrists, the most valued hawk of all was the gyrfalcon, a prize from the north which could be owned only by those of noblest blood. To say that this bird was worth a king's ransom would not be far from the truth, for it is recorded that Philip the Bold ransomed his son for twelve white gyrfalcons. After the demands had been made by the captors, it took two years, it is said, to round up the twelve birds. Although gyrfalcons are circumpolar, living in the rocky Arctic wastes of Europe, Asia and North America, most white gyrfalcons come from Greenland, where the sea-roving Vikings obtained them as early as the eleventh century. In fact, Greenland was called "the land of the white falcon."

The black, gray and white birds, once supposed to be distinct races, are now regarded as color phases, possible in the same brood of young. The white birds with their Arctic camouflage rarely visit the United States; the others are scarce enough, but now and then one is seen along the New England coast in winter. Two feet long, with a spread of about four feet, they can easily overtake and strike down auks, eiders and other sea birds.

Audubon, who had seen the black gyrfalcon in Labrador, but never a white one, drew the figures in this plate from a bird that had died in captivity.

ROGER TORY PETERSON



Brown Pelican

Brown Pelican

[PELECANUS OCCIDENTALIS]

THE serio-comic pelicans with their accordion-pleated pouches are the delight of every tourist who visits the beaches of Florida or California. The most popular pelicans of all are perhaps those who make the municipal pier at St. Petersburg their headquarters, patiently sitting on their posts until someone offers a handout. At once profoundly dignified, as birds of such ancient lineage should be, they are at the same time masters of deadpan clowning, particularly when two or three birds contend for the same fish. This little group of brown pelicans who prefer begging to an honest living probably nest with the hundreds of their kind who resort to the mangrove islands out in Tampa Bay. There are eight or ten such rookeries in Florida, and several others in the Carolinas and along the Gulf. On the Pacific side they do not breed north of California.

Pelicans fly in orderly lines, close to the water, flapping, then sailing, each bird taking its cue from the bird in front of it, as if they were playing follow-my-leader. Fishing, the big birds fly aloft, spot the schools of small fry, and facing downwind, pull their wings back and plunge beak-first with a grand splash. The brown pelican, which is the state bird of Louisiana, has a wingspread of six and a half feet. It is strictly coastal, whereas the white pelican, which has a wingspread of nine, nests far inland in the western half of the continent.

ROGER TORY PETERSON



Flamingo

Flamingo

[PHOENICOPTERUS RUBER]

IT took Audubon nearly twelve years, from 1826 to 1838, to complete the publication of the original edition of *The Birds of America*. All but the first ten plates were engraved by Robert Havell and his son of London. When the set was complete there were four huge volumes, the first three containing one hundred plates each, and the fourth, one hundred and thirty-five. These were reproduced by copper plate engraving and colored by hand. Later (1840 to 1844), an octavo edition was published, with sixty-five additional illustrations, bringing the total number to five hundred. But these, lithographed in Philadelphia, were far inferior to the four hundred and thirty-five large copper plate impressions.

Harry Havell, a descendant of the engraver, once showed me some proofs that were used by the colorists. These were not entire prints, but had been cut into irregular pieces, for what reason I cannot say. At any rate, I particularly remember the flamingo on which Audubon had written in pencil, "more red here." Possibly his memory exaggerated this point, for I have always thought he made this bird too deep a color. He had observed many of these grotesque waders in the Florida Keys, but today they are seldom seen away from the Bahamas, unless one goes to Hialeah Park, near Miami, where three or four hundred wing-clipped birds are kept. These famous captives lost their bright pink when first brought there, but regained it when fed a shrimp diet.

ROGER TORY PETERSON



Whistling Swan

Whistling Swan

[CYGNUS COLUMBIANUS]

THE park swan, that floats about in narcissistic adoration, comes from Europe. But we do have two native swans, magnificent untamed birds that were here when the first anchor chains rattled off the coast. One, the trumpeter swan of the northwest, has become one of the rarest North American birds. The other, the whistling swan, is doing very well these days, for it was taken off the list of legitimate game in time to save it. Even though it eats some of the duck food and is a big, tempting target, gunners spare it.

The whistling swan spends the summer north of the Arctic Circle, north and west of Hudson Bay. There might be forty thousand of them or perhaps fifty thousand, scattered in pairs and little groups over hundreds of miles of tundra. When ice begins to lock the bays, long goose-like wedges of them start southward, talking excitedly with whoops and soft trumpeting laughter. Then comes a parting of the ways: one large faction splits off to the west, heading for the great central valleys of California. The rest proceed to the Atlantic, past Lake Huron and Lake Erie, where some rest for awhile, then across the Appalachian ridges to the broad waters of the Chesapeake and the bays of North Carolina. It's a long journey. Occasionally in spring, when returning flocks rest on the Niagara River, birds are carried by the swift current over the falls. One morning two hundred met their death in this way.

ROGER TORY PETERSON



Roseate Spoonbill

Roseate Spoonbill

[AJAIA AJAJA]

SHELL pink with deep carmine "drip" along its shoulders, the roseate spoonbill is one of the most breath-taking of the world's weird birds. Living in the mangrove swamps it wades the marl flats, rhythmically swinging its flat bill from side to side and sifts out the killifishes, prawns and other small water creatures.

In Audubon's day spoonbills were numerous in the Gulf states from Florida to Texas, and although their rosy wings were sold commercially for fans in St. Augustine, they did not interest plumage hunters as much as the egrets whose filmy nuptial sprays were in such demand. But they were big pink birds that lived with the egrets and so were tempting targets. In the years that followed, particularly in the years after the Civil War, they rapidly disappeared, and before the end of the century not one still bred in Texas and perhaps not two dozen in Florida. If it were not for the fact that some spoonbills still lived south of the border the species surely would have followed the passenger pigeon and the Carolina parakeet into the black void of extinction. During the '20's little flocks wandered across the Mexican border into Texas, and when they tried to nest the National Audubon Society extended a helping hand by sending wardens to watch over them. By 1941 there were 5,000 spoonbills in Texas. The Florida birds have not done as well but during 1948 several hundred "pinks" were present in the new Everglades National Park.

ROGER TORY PETERSON



Sooty Tern

Sooty Tern

[STERNA FUSCATA]

IN the West Indies, before a hurricane strikes, great flocks of sooty terns, or "hurricane birds," swarm to the beaches out of a seemingly birdless sea. With the passing of the storm they again disappear into the oceanic wastes. Often they are carried northward along the coast by these cyclonic disturbances and twice I have picked up dead ones in New York State.

Although in the tropical oceans there must be many millions of sooty terns, more than of any other species of tern in the world, few are seen away from their nesting islands. They reach the United States at only one spot, the Dry Tortugas, seventy miles west of Key West in the Gulf of Mexico, where one hundred thousand of these striking birds, which measure about sixteen inches long, gather each year, creating one of the most dramatic spectacles of bird life to be witnessed in America. Audubon estimated that there were millions in the colony, and told of a party of Spanish eggers from Havana who had laid in a cargo of eight tons of the eggs (about 240,000)—normally each bird lays only a single egg!

Audubon was not the first traveler to record the bird colony in the Tortugas. It had been known to mariners for three hundred years before that, when Ponce de Leon, searching for the fountain of youth, landed there and killed "birds that amounted to five thousand." So, by all odds it is the oldest known bird colony in America.

ROGER TORY PETERSON



Great Blue Heron

Great Blue Heron

[ARDEA HERODIAS]

ONE of the most ambitious publishing ventures of all time, Audubon's *Birds of America* appeared in four huge volumes, the heaviest of which weighs fifty-six pounds. The page size, 26½ by 39½ inches before trimming, was termed "elephant folio," and as it was Audubon's desire to show every bird, swan or hummingbird, life size, his ingenuity was sometimes taxed to the limit. In this portrait of a great blue heron, he has solved the problem of fitting the gangling bird onto the page by dropping its head in a graceful sweep to its feet.

Four feet tall, the statuesque great blue heron stands motionless in the shallows, waiting until a fingerling or a frog ventures close enough to spear with a lightning thrust. From coast to coast, and from the Gulf of St. Lawrence to the Gulf of Mexico, this gaunt wader is familiar to people who live near the water. Many call it a "crane," but cranes are more restricted to the inland prairies and always fly with their necks stretched full length. The great blue heron in flight pulls its neck into a comfortable loop, tucking its head back to its shoulders. Both birds have a wing-spread equal to that of an eagle.

High in the tall trees of swampy woodlands herons build their rickety platforms of sticks. Hundreds often gather from miles around to form a single heronry, for like many other water birds they find security in numbers.

ROGER TORY PETERSON



Great Horned Owl

Great Horned Owl

[BUBO VIRGINIANUS]

THE deep, measured hooting of this nocturnal hunter sounds from the woodlands as dusk settles over the land. Alert to the slightest rustle of a small animal in the shadows, it glides on noiseless wings through the trees, ready to strike quickly.

Its wide yellow eyes and the ear tufts (which have nothing to do with its real ears) give the bird a cat-like look—in fact, in the foggy forests of Newfoundland, lumberjacks call it the 'cat owl'. Distributed widely, it thrives from Labrador and Alaska to South America and varies from near-white at the edge of the Arctic to dusky in more humid regions. It is a resident of every state in the Union and even though it has the handicap of size (nearly two feet long, with a wing-spread of four to five feet), possesses the wits necessary to survive even in settled farming country. I have seen a nest in the rocks on the Palisades close to the George Washington Bridge at the very threshold of New York City. In some places they hide their two white eggs in hollow trees, in others they appropriate old crow's nests. So aggressive is this magnificent predator and so powerful are its spring-trap claws that even an eagle cannot stand up to it. In Florida, one eagle's nest in twenty is commandeered by horned owls each year, and the owners are forced to rebuild their mansions elsewhere.

ROGER TORY PETERSON



Lesser Yellow-Legs

Lesser Yellow-Legs

[TOTANUS FLAVIPES]

THE idyllic landscapes so frequent in his later pieces reflect Audubon's admiration of the Cruikshank prints. Here beside a woodland pool, a few miles distant from Charleston, South Carolina, he shows a "yellow-shank." In this spot he spent many pleasant hours with his friend John Bachman, resting after long fatiguing searches for birds in the surrounding woods.

In the lazy days of deep summer, from July on, the mellow whistles of yellow-legs drift over the tidal marshes that fringe the Atlantic coast. These slim waders are already southbound from the Hudson Bay country, and some will continue until they reach the wide marshy pampas of Argentina. Like so many other shorebirds, they have a tendency to migrate in a clockwise direction, returning in spring by a more inland route through the Mississippi Valley and the prairies.

Shorebirds are fascinating to watch when they swarm like sand fleas over the mud flats and the beaches, but they are a headache for the beginner to identify. The lesser yellow-legs, with its bright canary-yellow legs would be simple enough if there were not also a greater yellow-legs. The two differ in size: this one, the lesser, measures about ten inches long; the greater, fourteen. Experts, however, can tell them apart by their calls. Both are great tattlers, giving the alarm to all the shorebirds on the flat when someone approaches.

ROGER TORY PETERSON



American Merganser

American Merganser

[MERCUS MERGANSER]

IN winter scores of mergansers, sometimes hundreds, float on the tidal basin that serves as a reflecting pool for the Washington Monument and the Jefferson Memorial in the City of Washington. The stately white drakes, over two feet long, with glossy green heads and bright carmine bills, accompany the bushy-headed, quaker-gray females. These, the birds that are called goosanders in Europe, and which Audubon called by the old-world name, are the commonest ducks in winter on the rivers of the northern states, especially on those creeks that freeze partly over. There in the open stretches they dive in the swift current, taking care not to come up under the shelf of ice. When they dive they often leap in an arc like a porpoise, and submerging, outswim the small fish by using both their feet and their partly open wings. Unlike most other ducks which have flat mud-straining bills, mergansers have spike-like bills with saw-toothed edges, perfect equipment for holding onto slippery fish.

In this print Audubon has shown a pair of these river-loving ducks in a typical merganser stream at Cohoes Falls in the State of New York. Mergansers spend the summer across the entire width of wooded Canada and make their appearance in the states when cold weather seals the northern ponds with ice. They are fresh-water birds, seldom visiting tidewater except during severe freeze-ups.

The red-breasted merganser is the salt water member of the family.

ROGER TORY PETERSON